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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Jay C. Pershing

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EXAMINER

KUBELIK, ANNE R

ART UNIT

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1638

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/780,151	Applicant(s) PERSHING ET AL.	
	Examiner Anne R. Kubelik	Art Unit 1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/31/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 1-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's election without traverse of Group II (claims 13-24) and the species insecticidal transgene, insecticide, and chloronicotinyl insecticide in the reply filed 13 August 2007, and species b (seed treated with a seed treatment) in the reply filed on 31 December 2007 is acknowledged. As art was found on seed without a seed treatment, the restriction between seed treatment and no seed treatment is withdrawn.

2. The use of numerous trademarks has been noted in this application. They should be capitalized wherever they appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Objections

3. Claims 14-24 are objected to because of the following informalities:

In claims 14-24, line 1, there should be a comma before "wherein".

In claims 19 and 22, line 6, "sRNAi" should be replaced with --siRNA--.

In claims 19 and 22, line 5, "or" should be replaced with a comma.

In claims 20 and 23, line 2, "and" should be replaced with a comma.

In claims 21 and 24, line 4, "and/or" should be replaced with a comma and in line 5, "and" should be replaced with a comma.

In claims 21 and 24, part (h), there is a plurals disagreement in the recitation "a biological/fermentation products" (emphasis added).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 21 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention. Dependent claims are included in all rejections.

Claims 21 and 24 are indefinite because it appears that the seed blend must be coated with all of agents a) through j). If that is not the intent, the claims should be written in proper Markush forma, that is “selected from the group consisting of A, B, C and D.” See MPEP § 2173.05(h). For purposes of examination, use of only one pesticide was assumed. Such treatment does not relieve Applicant of the responsibility to respond to this rejection.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*,

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86 USPQ 481 (Bd. App. 1949). In the present instance, claim s 21 and 24, part (f), recite the broad recitation diacylhydrazines, and the claims also recite halofenozide, which is the narrower statement of the range/limitation.

Claims 21 and 24 contain the trademark/trade name “diazinon” and may contain other trademarks. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe a specific organophosphate and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 14 is not interpreted as limiting the seed blend to one in which the refuge seed has a second transgene, as the claim only lists possible transgenes without requiring that the refuge seed has it. Similarly, claim 17, and all dependent claims, is not interpreted as limiting the seed

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to having a seed treatment, as the claim only lists possible treatment without requiring that the seed has it.

8. Claims 13-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Lambert et al (1996, Proc. Beltwide Cotton Conf. 2:931-935).

Lambert et al teach cotton seed blends of 85% Bt transformed seed: 15% non-Bt transformed seed and 75% Bt:25% non-Bt (pg 932, column 1, paragraph 1). The blends do not have seed treatment.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a), which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 13-24 rejected under 35 U.S.C. 103(a) as being unpatentable over Lambert et al (1996, Proc. Beltwide Cotton Conf. 2:931-935) in view of Turnblad et al (1998, US Patent 5,849,320).

The claims are drawn to seed blends comprising seeds transformed with an insecticidal transgene and seeds not so transformed, wherein both kinds of seeds are treated with a chloronicotinyl insecticidal agent.

The teachings of Lambert et al are discussed above. Lambert et al do not disclose treatment of the seeds with a chloronicotinyl insecticidal agent.

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Turnblad et al teach an insecticidal coating for seeds, including cotton, in which the possible insecticides include the chloronicotinyl imidacloprid (column 4, lines 20-28, claim 9).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify the seed blends taught by Lambert et al, to coat them with an insecticide as described in Turnblad et al. One of ordinary skill in the art would have been motivated to do so because seed treatment is an effective method of controlling insect pests (Turnblad et al, column 2, lines 7-12) and because Lambert et al teach that yields are higher from Bt cotton treated with synthetic insecticides (pg 933, left column, paragraphs 1-2; Tables 1-7). One of skill in the art would want to maximize yield by applying insecticide to the seeds while using a seed blend to facilitate ease of providing a refuge.

11. Claims 13-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kennedy et al (1995, J. Econ. Entomol. 88:454-460) in view of in view of Turnblad et al (1998, US Patent 5,849,320).

The claims are drawn to seed blends comprising seeds transformed with one insecticidal transgene and seeds transformed with a second insecticidal transgene, wherein both kinds of seeds are treated with a chloronicotinyl insecticidal agent.

Kennedy et al teach seed blends and expression of multiple toxins (pg 459, left column, paragraph 2). Kennedy et al do not disclose seed blends comprising seeds transformed with one insecticidal transgene and seeds transformed with a second insecticidal transgene or blends in which the seeds are treated with a chloronicotinyl insecticidal agent.

The teachings of Turnblad et al are discussed above.

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At the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify the seed blends as taught by Kennedy et al, to combine multiple toxins and seed blends and to coat the seed blends with an insecticide as described in Turnblad et al. One of ordinary skill in the art would have been motivated to do make the blends be of seeds transformed with one insecticidal transgene and seeds transformed with a second insecticidal transgene because Kennedy teaches both seed blends and multiple toxins as important resistance management strategies; selection of multiple toxins in a single seed versus multiple toxins in the form of a different toxin in each kind of seed in a blend would be an obvious design choice. Further, the latter would allow sellers to more easily mix and match resistances according to need and market, without having to transform a second resistance gene into a plant that has a first. One of ordinary skill in the art would have been motivated to coat the seed blends with an insecticide because seed treatment is an effective method of controlling insect pests (Turnblad et al, column 2, lines 7-12), and because Kennedy et al teaches the importance of having all strategies in one convenient package (pg 459, left column, paragraph 3).

Conclusion

12. No claim is allowed.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne R. Kubelik, whose telephone number is (571) 272-0801. The examiner can normally be reached Monday through Friday, 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg, can be reached at (571) 272-0975.

The central fax number for official correspondence is (571) 273-8300.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is

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For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

Anne Kubelik, Ph.D.

March 28, 2008

/Anne R. Kubelik/

Primary Examiner, Art Unit 1638